

Work Order ID 56316

February 17, 2010 2:36:20 PM

Page 1

Item ID: D3778-1

Accept

Setup Start

Revision ID:

Stop

Item Name: Bracket

Start Date: 2/17/10 Start Qty: 10.00

Cust Item ID:

Required Date: 2/24/10 Req'd Qty: 10.00

Customer:

Reference:

Run Start

Approvals: Process Plan: *M*

Date: *10-2-17*

Tooling:

Date:

Stop

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D3778

Rev A

100

0.00



Waterjet

FLOW WATER JET

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg D3778 1 Dwg Rev: *A* 2-Deburr if necessary
****grain direction along 2.34" ****

5052, 590

FB 10-2-24

(24)

110

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Memo

0.00

Quality Control

FB 10-2-24

120

QC8- Inspect parts - second check

0.00



QC

Memo

0.00

Quality Control

8/10/2015

counters
(24)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 56316

February 17, 2010 2:36:20 PM

Page 2

Item ID: D3778-1

Accept

Setup Start

Revision ID:

Stop

Item Name: Bracket

Start Date: 2/17/10 Start Qty: 10.00

Cust Item ID:

Required Date: 2/24/10 Req'd Qty: 10.00

Customer:

Reference:

Run Start

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130



Brake NC

NC BRAKE

0.00

Memo

0.00

Brake NC

1-deburr

L2-Bend as per Dwg D3778

SB 10/03/04

24

140



QC

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

Quality Control

Side 10/03/04

count
x24

150



HandFinish

Chemical Conversion Coat per QS1005 4.1

0.00

Memo

0.00

Hand Finishing

HL 10/03/08

x24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 56316

February 17, 2010 2:36:20 PM

Page 3

Item ID: D3778-1

Accept

Setup Start

Revision ID:

Stop

Item Name: Bracket

Start Date: 2/17/10

Start Qty: 10.00

Cust Item ID:

Required Date: 2/24/10

Req'd Qty: 10.00

Customer:

Reference:

Run Start

Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

160

Black Sandtex(Ref:4.3.5.7) per QSI005 4.3

0.00

Powdercoat

Memo

0.00

Powder Coating

START TIME: 8:00AM FINISH TIME: 8:30AM
OVEN TEMPERATURE: 320°F

⇒ Sel 10/03/09

(24) ✓

170

QC3- Inspect Part Finish

0.00

QC

Memo

0.00

Quality Control

BR 10-3-9

(24) ✓

180

Identify as per dwg & Stock Location: 277

0.00

Packaging

Memo

0.00

Packaging

Pl 10/3/10 (24)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 56316

February 17, 2010 2:36:20 PM

Page 4

Item ID: D3778-1

Accept

Setup Start

Revision ID:

Stop

Item Name: Bracket

Start Date: 2/17/10 Start Qty: 10.00

Required Date: 2/24/10 Req'd Qty: 10.00

Cust Item ID:

Customer:

Reference:

Run Start

Approvals: Process Plan: Date: Tooling: Date:

Stop

QC: Date: SPC (Y/N): Date:

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

190

QC21- Final Inspection - Work Order Release

0.00

QC

Memo

0.00

Quality Control

10/03/11

PL 10-3-10
24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

February 17, 2010 2:36:24 PM

Page 1

Work Order ID: 56316



Parent Item: D3778-1



Parent Item Name: Bracket

Start Date: 2/17/10

Required Date: 2/24/10

Comments: IPP Rev:A new issue 08-04-15 DD verified by:EC
 IPP Rev:B 08-05-14 revA as per ECN1171 DD verified by:EC
 IPP Rev:C 08-05-22 add powder coating DD verified by:ec

Start Qty: 10.00

Required Qty: 10.00

Component Item ID/	Replacement	Mfg/	Bin	Primary	Last	Route	Unit of	Qty on	Remaining	Qty	Date	Status
M5052H32S.090		Purchased	No			100	sf	61.3000	0.9832	2.5		
											18 10-2-24	
5052-H32 .090 Sheet												

Warehouse	Loc Qty	Loc Code
<u>Location</u>		
Main Warehouse		
MAT	61.3	
100782	29.3	
3019	32	

100782

24

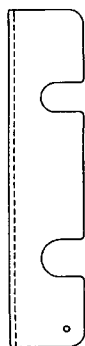
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



Grain Direction

$\phi 0.500 \pm 0.005$

2.34

0.468

R0.06
4 PL

5.75

0.400

2.750

1.50

0.30

R0.25
4 PL

$\phi 0.635 \pm 0.005$

0.098

0.30

Handwritten notes:
.28
0.113
.317

33175 SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED
SUBJECT TO AM.
WITHOUT
WORK
NO. 56314
BX 10-2-17

RELEASED
08-05-13

NOTES:
1) MATERIAL: 5052-H32 ALUMINUM SHEET, 0.090 THICK PER AMS-QQ-A-250/8 OR AMS 4016
(REF DART SPEC M5052H32.090)
OR
6061-T6/T62 ALUMINUM SHEET, 0.090 THICK PER AMS-QQ-A-250/11 OR AMS 4025/4027
(REF DART SPEC M6061T60.090)
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT BLACK SANDTEX (4.3.5.7) PER DART QSI 005 4.3
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3778-1" USING FINE PERMANENT INK MARKER OR LABEL AFTER FINISH
7) WEIGHT: 0.11 lbs

A	NEW ISSUE	PH	08.04.11
REV.	DESCRIPTION		BY DATE
DESIGN	PH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D3778 TITLE BRACKET COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL. IT IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD.	REV. A
DRAWN	PH		SHEET 1 OF 1
CHECKED	SP		SCALE
MFG. APPR.	PH		NTS
APPROVED	PH		
DE APPR.	PH		
DATE	08.04.11		